Special Populations

- Racial and ethnic groups
- Children and adolescents
- Women
- Older persons

Racial and Ethnic Groups

African Americans	• Among the highest prevalence • Early onset • Delayed treatment
Hispanics	• Generally low prevalence • Lowest control rate in Mexican Americans
Asian and Pacific Islanders	• May be more responsive to treatment than other groups
American Indians	• Similar prevalence to general population • High prevalence of diabetes and obesity

Children and Adolescents

- Blood pressure at 95th or higher percentile is considered elevated.
- Lifestyle modifications should be recommended.
- Drug therapy should be prescribed for higher levels of blood pressure.
- Attempts should be made to determine other causes of high blood pressure and other cardiovascular risk factors.

95th Percentile of Blood Pressure by Selected Ages and Height in Girls

	SBP/DBP (mm Hg)	
Age	50th percentile for Height	75th percentile for Height
1	104/58	105/59
6	111/73	112/73
12	123/80	124/81
17	129/84	130/85

95th Percentile of Blood Pressure by Selected Ages and Height in Boys

	SBP/DBP (mm Hg)	
Age	50th percentile for Height	75th percentile for Height
1	102/57	104/58
6	114/74	115/75
12	123/81	125/82
17	136/87	138/88

Women

- Clinical trials have not demonstrated significant differences between men and women in treatment response and outcomes.
- Some women using oral contraceptives may have significant increases in blood pressure.
- High blood pressure is not a contraindication to hormone replacement therapy.

Pregnant Women

- Chronic hypertension is high blood pressure present before pregnancy or diagnosed before the 20th week of gestation.
- Preeclampsia is increased blood pressure that occurs in pregnancy (generally after the 20th week) and is accompanied by edema, proteinuria, or both.
- ACE inhibitors and angiotensin II receptor blockers are contraindicated for pregnant women.
- Methyldopa is recommended for women diagnosed during pregnancy.

Antihypertensive Drugs Used in Pregnancy

These agents* may be used with chronic hypertension (DBP > 100 mm Hg) or acute hypertension (DBP > 105 mm Hg).	
Central α-agonists	Methyldopa is the drug of choice.
β-blockers and α-β-blockers	Atenolol, metoprolol, and labetalol appear safe and effective in late pregnancy.
Calcium antagonists	Potential synergism with magnesium sulfate may lead to precipitous hypotension.

*Limited or no controlled trials in pregnant women.

Antihypertensive Drugs Used in Pregnancy (continued)

These agents* may be used with chronic hypertension (DBP > 100 mm Hg) or acute hypertension (DBP > 105).

Diuretics	Diuretics are recommended for chronic hypertension if prescribed before gestation, but they are not recommended for preeclampsia.
Direct vasodilators	Hydralazine is the parenteral drug of choice based on its long history of safety and efficacy.

*Limited or no controlled trials in pregnant women.

ACE inhibitors and angiotensin II receptor blockers are contraindicated.

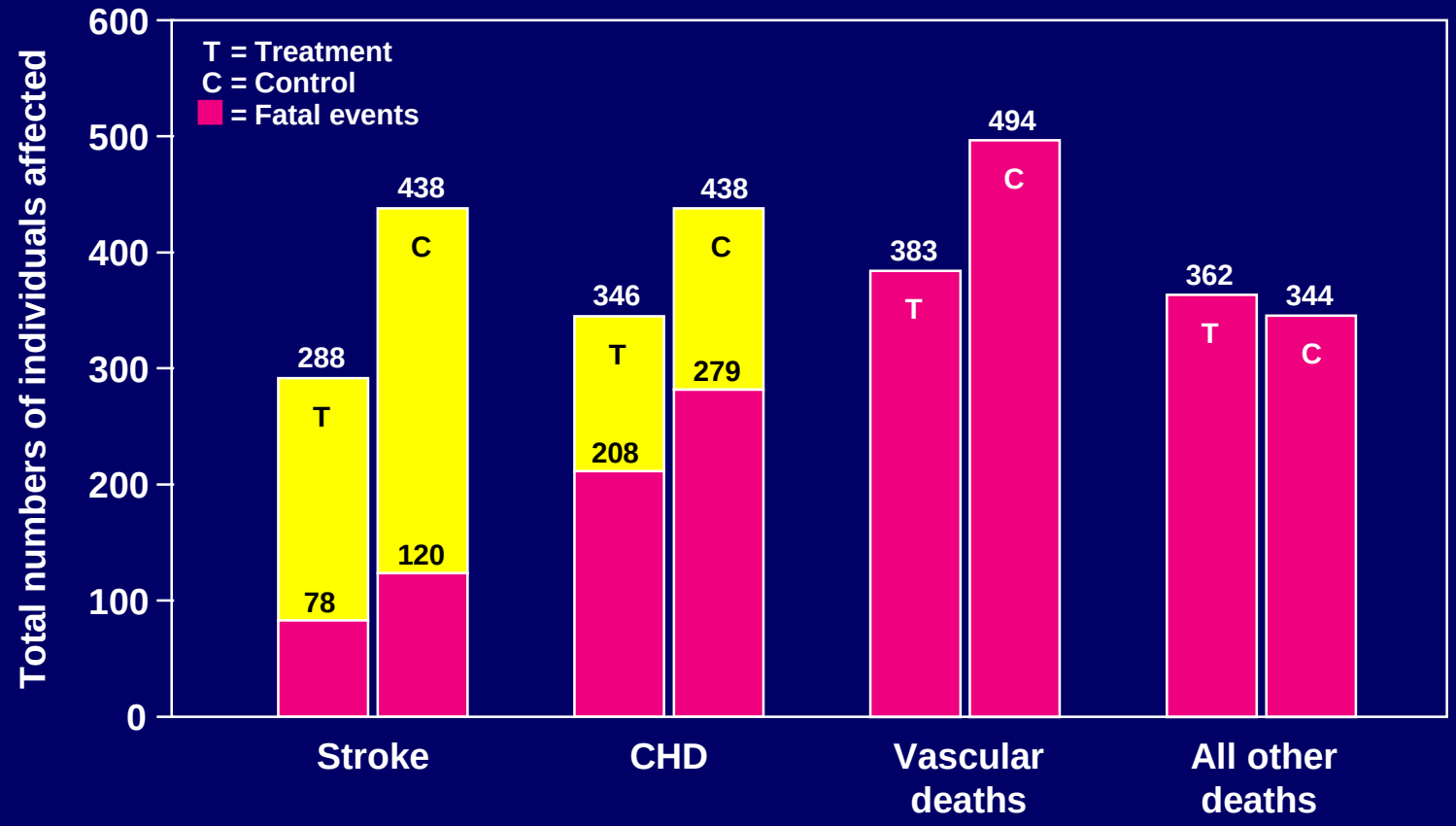
Older Persons

- Hypertension is common.
- SBP is a better predictor of events than DBP.
- Pseudohypertension and “white-coat hypertension” may indicate a need for readings outside the office.
- Primary hypertension is the most common cause, but common identifiable causes (e.g., renovascular hypertension) should be considered.

Older Persons (continued)

- Therapy should begin with lifestyle modifications.
- Starting doses for drug therapy should be lower than those used in younger adults.
- Goal of therapy is the same (< 140/90 mm Hg), although an interim goal of SBP < 160 mm Hg may be necessary.

Combined Results of Five Randomized Trials of Antihypertensive Treatment in the Elderly

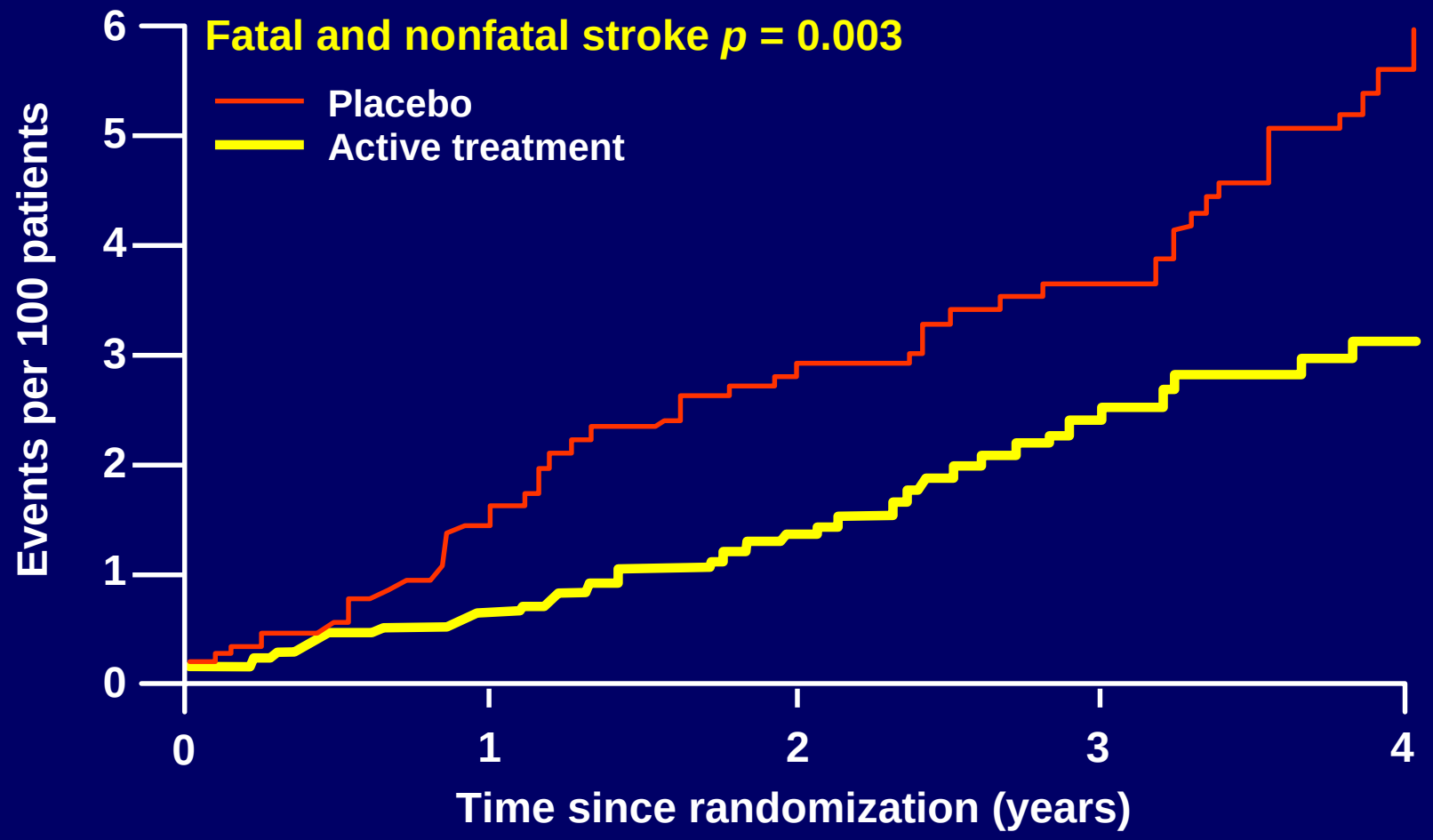


	Stroke	CHD	Vascular deaths	All other deaths
% (SD) reduction in odds	34% (6) 2P <0.0001	19% (7) 2P <0.05	23% (6) 2P <0.001	–7% (8) 2P >0.5

Effects of Therapy in Elderly Hypertensive Patients

	SHEP (1991)	STOP-HTN (Dahlöf, 1991)	MRC (1992)	SYST-EUR (1997)
Mean BP at entry (mm Hg)	170/77	195/102	185/91	174/85

Cumulative Stroke Rate in SYST-EUR Trial



Cumulative Stroke Rate in SHEP Trial